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(71) Applicant (for DE only): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]**; Stein-damm 94, 20099 Hamburg (DE).

(71) Applicant (for all designated States except DE, US): **KONINKLIJKE PHILIPS ELECTRONICS N. V. [NL/NL]**; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **VAN STEEN-DAAL, Udo [DE/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE).

BONTUS, Claas [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE). FORTHMANN, Peter [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE).

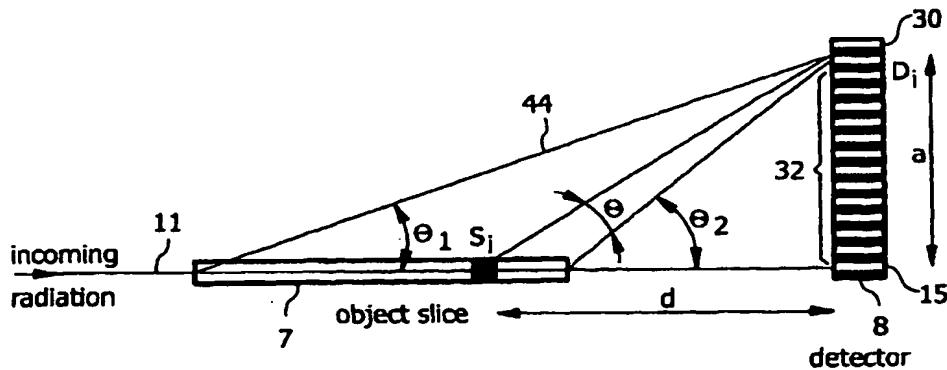
(74) Agent: **MEYER, Michael**; Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE).

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(54) Title: COHERENT-SCATTER COMPUTED TOMOGRAPHY



WO 2005/036467 A1

(57) **Abstract:** Known reconstruction techniques from coherent scattered x-rays apply non-exact reconstruction techniques. According to the present invention, a relatively wide spectrum of wave-vector transfers q of the scattered x-ray photons is acquired. The projection data is interpreted as line integrals in the $x-y-q$ space and the projection data is resorted to correspond to an acquisition along any source trajectory. Due to this, an exact helical reconstruction algorithms may be applied and redundant data may be used to obtain a better image quality.